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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,132	05/31/2007	Stefan Trumpi	BR P1003 US	1392

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THADDIUS J. CARVIS
102 NORTH KING STREET
LEESBURG, VA 20176

EXAMINER

MAYO-PINNOCK, TARA LEIGH

ART UNIT	PAPER NUMBER
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3671

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12/06/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/598,132	Applicant(s) TRUMPI, STEFAN	
	Examiner TARA MAYO-PINNOCK	Art Unit 3671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 3,5,6 and 8-18 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 3,5,6 and 8-18 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☒ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 18 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Introduction

1. The following Office Action is in response to the Amendment filed 01 July 2011 and the Supplemental Amendment filed 19 September 2011.

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

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2. The disclosure is objected to because of the following informalities: omitted section headings and non-idiomatic English. Appropriate correction is required.

Claim Objections

3. The prior objection to claim 5 for a minor grammatical error has been overcome by the response filed 01 July 2011 wherein Applicant changed "sections" to --section--.
4. Claims 5, 6 and 8 through 11 are objected to because of the following informalities: non-idiomatic English.

In all of the claims on line 1, change "characterised" to --characterized--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The prior rejections of claims 9 and 10 under 35 USC §112, second paragraph have been overcome by the response filed 01 July 2011 wherein Applicant defined the variables K_1 and K_2 and deleted the limitations lacking proper antecedent basis.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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7. Claims 8, 16 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 8, the scope of the claimed invention is indefinite because it is unclear if “an expansion element” is related to the previously recited expansion element of claim 13 or 14.

With regard to claim 16, the scope of the claimed invention is rendered indefinite by the recitation of “hose-like” in section c at line 1. Specifically, it is unclear what structural limitations, if any, Applicant intends to impart with the “-like.” For the purpose of prosecution on the merits, the examiner has interpreted the term to mean --hose--. Claim 17 is similarly rejected.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3, 5, 6 and 8 through 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson (U.S. Patent No. 4,432,667 A) in view of Uemura (U.S. Patent No. 4,095,435 A).

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Richardson '667 discloses a method for determining the propulsion force on a plurality of pipe elements (12-*n*) to produce a longitudinal structure (10) in the earth using a pressing device (i.e., hydraulic rams 60) and deformable fluid-filled expansion elements (22-*n*) arranged in joints of the pipe elements, the longitudinal structure including a header piece (12-1) controlled with a front expansion element (22-1); wherein the method includes the steps of filling the expansion elements with a pressure-resistant fluid (col. 7, lines 32 through 35) and measuring the fluid pressure in the expansion element (col. 4 at lines 52 through 67); wherein the expansion elements have circular cross sections; wherein use of the expansion elements inherently controls the installation of the pipe elements and affects the quality of the installation; wherein parameters are measured on pre-compression of the expansion element and measured values of the parameters are stored (col. 4 at lines 52 through 67); wherein a rearward pipe element is located to receive a pressing force.

Richardson '667 does not expressly teach the steps of measuring a deformation of the joint by at least three local expansion measurements and calculating geometric data of an expansion plane of the joint from the three local measurements.

Uemura '435 discloses a method of advancing a plurality of construction units having joints therebetween, the method comprising the step of measuring deformation of the joints by three measurements (i.e., those measurements taken by the split-measuring, vertical shift-measuring and horizontal shift-measuring instruments per Claim 9) and, inherently, calculating geometric data of an expansion plane of the joint from the three local measurements, the steps being useful for the remote control of the propulsion of the units.

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With regard to claims 13 and 14, it would have been obvious to one having ordinary skill in the art at the time of invention to modify the method of Richardson '667 such that it would further include the steps of measuring a deformation of the joint by at least three local expansion measurements and calculating geometric data of an expansion plane of the joint from the three local measurements as taught by Uemura '435. Specifically, one having ordinary skill in the art would have had a reasonable expectation of success since the modification would have merely required the addition of known steps to yield predictable results.

With regard to claim 15, the step of comparing the size and eccentricity of the propulsion force against stored standard values is inherent to the method taught by the combination of Richardson '667 and Uemura '435. Specifically, the amount of propulsion would necessarily be monitored to prevent damage of the pipe elements.

With specific regard to claim 5, the combination of Richardson '667 and Uemura '435 fails to teach the expansion element divided into sections, each section being individually measured and having its own fluid supply. It would have been obvious to one having ordinary skill in the art at the time of invention to divide the expansion element into sections, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179. Furthermore, it would have been obvious to one having ordinary skill in the art at the time of invention to individually measure the pressure of each section and provide each section with its own fluid supply, since it has been held that mere duplication of the essential steps/working parts of a method/device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

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With specific regard to claim 9, Richardson '667 does not teach use of an alarm. However, it would have been obvious to one having ordinary skill in the art at the time of invention to modify the prior art method such that it would include an alarm to monitor and indicate potential failure due to exceeded force limits, since the examiner takes Official Notice of the use of such alarms extensively in the art of pipe laying.

10. Claims 16 through 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson (U.S. Patent No. 4,432,667 A) in view of Uemura (U.S. Patent No. 4,095,435 A) and Akesaka (U.S. Patent No. 4,815,695A).

The combination of Richardson '667 and Uemura '435 is applied herein substantially as applied above.

Richardson '677 further teaches a filling valve (27-*n*) connected to the hollow pressure transmitting element between two pipe elements.

With regard to claims 16 and 17, neither Richardson '667 nor Uemura '435 teach the pressing device resting in a pressing bay on an abutment. Akesaka '695 teaches a pipe propelling device, wherein the device is adapted to rest in a pressing bay on an abutment. It would have been obvious to one having ordinary skill in the art at the time of invention to modify the method of Richardson '667 and Uemura '435 such that it would include a pipe propelling device resting in a pressing bay on an abutment (16) as taught by Akesaka '695. Specifically, one having ordinary skill in the art would have had a reasonable expectation of success since the modification would have merely required the addition of an element known in the art for use as originally intended.

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With regard to claim 12, the steps of qualitatively or quantitatively evaluating records and implementing quality control based on the evaluation are considered inherent to the method taught by the combination of Richardson '667 and Uemura '435. Specifically, one having ordinary skill in the art would necessarily evaluate the records (i.e., a collection of measurements) and use the same to adjust performance of the method steps as needed.

Response to Arguments

11. Applicant's arguments with respect to claims 13, 16 and 17, namely that Richardson '667 and Uemura '435 fail to teach a pressing device, have been considered but are moot in view of the new ground(s) of rejection.

12. Applicant's arguments filed 19 September 2011 have been fully considered but they are not persuasive.

Applicant argues the prior art combination fails to teach the step of "providing a pressing device resting on an abutment and pushing the entire pipeline in an advance direction to advance the entire pipeline by a length of one pipe element" as recited in the body of claim 14 and as similarly recited in amended claim 13. The examiner contends a third pipe element (Richardson '667, element 12) can reasonably be interpreted as an abutment and the inflatable torus (22) between an adjacent (or second) pipe element and the third pipe element interpreted as the pressing device. Additionally, the "entire pipeline" can reasonably be interpreted to consist of the first and second pipe elements, a "rearward" pipe element is not necessarily the rearmost pipe

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element, and the claims do not require the step of pushing to be performed as a single push; i.e., multiple pushing steps can be performed to advance the pipeline.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TARA MAYO-PINNOCK whose telephone number is (571)272-6992. The examiner can normally be reached on Monday through Friday 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 571-272-6998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TARA MAYO-PINNOCK/
Primary Examiner, Art Unit 3671

tmp
01 December 2011